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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,576	12/04/2001	Siegfried Dachtler	TAIG-94	8144
7590		02/24/2004	EXAMINER	
Peter L. Costas Pepe & Hazard LLP 225 Asylum Street Hartford, CT 06012		JOERGER, KAITLIN S		
		ART UNIT	PAPER NUMBER	
		3653		

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,576

Applicant(s)

DACHTLER, SIEGFRIED

Examiner

Kaitlin S Joerger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,9-14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,5,9-12 and 17-19 is/are rejected.
- 7) ☐ Claim(s) 2,3,13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 and 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 9, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiki et al. in view of Croyle et al.

Shiiki teaches a sheet lifter and separator for lifting and separating the uppermost sheet of a stack of workpieces comprising:

A lifter including a frame, which is made up of beam 9 and vacuum hanger members, 11, and a multiplicity of suction holders, 13A-13C, with surface at their lower ends to engage the topmost sheet, wherein one of said suction holder, 13A, is located adjacent to one side of the frame, see column 4, lines 43+ and figures 1B and 2A. He further teaches a separator frame, 33, mounted on the lifter frame for pivotable movement about an axis parallel on side of the lifter frame.

Shiiki further teaches a vacuum source to draw air from said holders, wherein the vacuum hanger members, 11, also act as a conduit means, see column 6, lines 10+. Shiiki also discusses in the above mentioned column 6, and depicts in figure 2A, that said suction holder, 13A, which is located adjacent to one side is operable to bend the edge portion of the sheet adjacent to said one side upwardly from the plane defined by the working surface of the other suction holders, which are space further inwardly from the one side.

Figure 2A of Shiiki further teaches that the holder, 13A, is uncoupled from the other holder placed on the outermost workpiece, and that the holder 13A is disposed on a support structure that is moveable relative to the lifter frame. Wherein the support structure is a separator frame pivotally supported on said lifter frame, along an axis parallel to the one side of the lifter frame, and said one suction holder 13A is pivoted from a position in which it is aligned with the suction holders on said lifter frame to a position upwardly therefrom.

Shiiki also teaches a drive means for moving said frame upwardly and downwardly so as to position the suction holders to grip the topmost sheet of the stack and lift it upwardly. He further teaches a means to drive the separator holders against the topmost sheet to engage and bend the topmost sheet to cause it to separate from the sheet adhered to its lower surface. Lastly, while Shiiki does not specifically discuss a control means for controlling the operation of the lifter apparatus it is obvious that the operation of such a machine would require a control means, even if no such one is mentioned. This point is made clear in column 6, lines 10+ when Shiiki discusses the difference in operation of the driving means when there is a thin sheet set to be loaded versus a thick sheet. Obviously some sort of control means must control the difference in operation.

In claim 9 and column 3 lines 10+ Shiiki further discusses the use of a separator nozzle connected to a source of pressurized air, whereby the pressurized air is released to facilitate separation of the uppermost sheet.

Shiiki et al. does not teach a workpiece stop spaced inwardly from the one side of the lifter frame, where the suction holder on the separator frame is movable to a position above the lower surface of the workpiece stop. Croyle et al., however, does teach such a feature. As

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shown in figure 1, he teaches a workpiece stop, 160, where the suction holder 140 is movable to a position above the lower surface of the stop.

It would have been obvious to one of ordinary skill in the art to include the workpiece stop of Croyle on the lifter frame of Shiiki if one desired to improve the separating function of the separator frame by providing a stop, which the uppermost workpiece can be bent around to be separated from the stack of sheets.

Claims 10 and 11, and, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiiki et al. in view of Croyle et al. as applied to claims 1 and 9, and 12 and 17, respectively above, and further in view of Stephan.

The combination of Shiiki and Croyle, as fully discussed above, does not specifically claim that the pressurized air is released from the nozzle in pulses. Stephan, however, does teach this in column 5, lines 1+. It would have been obvious to one of ordinary skill in the art to include a specific control means to release the pressurized air in pulses so that it is released only when necessary, and thereby increasing the efficiency of the separator.

Neither Shiiki nor Croyle specifically teach a multiplicity of separator nozzles in a staggered relationship along the one side of the frame assigned to the suction separators. However, it would have been obvious to include a separator nozzle in the vicinity of every vacuum hanger member, which holds the suction separators, to increase the efficiency of the pressurized air nozzle in separating the topmost workpiece from the second workpiece which is adhered below.

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Allowable Subject Matter

Claims 2, 3, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2 and 13 both claim a specific configuration of the suction holder on the separator wherein there are two holders one spaced close to the outer side and one spaced further inward from the outer side, and further where the suction holders have compressible sleeves provided on their base. The claims further state that the sleeve of the outer holder more compressible than the sleeve in the inner holder to provide a differential in vertical height to said working surface. Due to the specificity of these to claims the examiner was unable to find prior art that taught such a design, therefore it was determined that the claims and the ones that depend therefrom would be allowable if rewritten in independent form including all the limitations of the base claim.

Claims 20 and 21 are allowed.

Claims 20 and 21 are independent claims that include the limitations of claims 1 and 2 and 12 and 13, respectively. As a result claims 20 and 21 are allowable for the reasons stated in the paragraph above.

Response to Arguments

Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

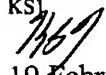
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaitlin S Joerger whose telephone number is 703-305-8503. The examiner can normally be reached on Monday - Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksj



19 February 2004



DONALD R. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600